PEDIATRICS.

UNDER THE CHARGE OF

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An Epidemic of Cerebrospinal Meningitis in Paris; Efficacy of Antimeningitic Serum.—In opposition to the usual belief that there is very little cerebrospinal meningitis in Paris, NETTER (*Bull. de l'acad. de méd. de Paris*, 1909, lxi, 300) reports a small epidemic. He, himself, has seen and treated 22 cases within the short space of three months, most of them in children and infants. Many of the patients lived within a small circle; and 6 of the children attended one school. Several of the children died within a few days and the diagnosis could only be made postmortem through lumbar puncture, the serum being turbid and containing the diplococcus of Weichselbaum. The symptoms varied greatly in the different cases, but the lumbar puncture made the diagnosis a certainty in each instance. Macroscopically, the fluid in all was turbid; microscopically, lymphocytosis existed and the Weichselbaum organism was found to be present. Netter emphasizes the importance of isolation until the nasal and pharyngeal mucus is free of organisms known to bear an etiological relation to the disease. He appreciates the difficulty, but feels that this is one of the most important problems in combating the disease. Fifteen of his patients were treated with antimeningitic serum, and but 3 of these died; these deaths occurred, respectively, in one patient with old otitis media and phlebitis of the ophthalmic vein, in another with bronchopneumonia and enteritis, and in a third who was not treated until moribund. The technique of the treatment, the changes in the symptoms, and the modifications in the cerebrospinal fluid are described minutely. The latter changes form a perfect control to the employment of the serum. He injects the serum into the spinal canal, using doses varying from 20 to 30 c.c. in children, and repeating the injections daily for three to four days. He is very enthusiastic about the results achieved.

Congenital Imperforation of the Œsophagus.—P. GIBERT and J. LEMEE (*Bull. et mém. de la soc. anat. de Paris*, 1909, lxxxiv, 94) report a case of congenital imperforation of the œsophagus in a child aged seven days. Within a few moments after nursing the child regurgitated all the milk spontaneously. This regurgitation was always accompanied by marked cyanosis. Having seen 5 cases of congenital imperforation of the œsophagus within fifteen mouths, this condition was at once considered, and local examination revealed this to be the true state of affairs. The soft catheter could not be pushed beyond 12 cm. from the buccal orifice. A tracheo-œsophageal fistula was suspected because of the marked cyanosis after nursing and at other periods, when saliva would be vomited up. This condition was verified at the autopsy, the upper third of the œsophagus being represented by a pharyngeo-œsophageal cul-de-sac, the lower two-thirds by a canal extending from the stomach to the trachea, opening into it at its posterior surface 3 mm. above its bifurcation and there separated from it by a valve.

Grave Intestinal Hemorrhage in the Newborn.—GUERIN-VALMALE (*Bull. de la soc. d'obst. de Paris*, 1909, xii, 97) reports the following case: A little girl, born without difficulty of healthy parents, was exposed to considerable cold air shortly after her birth. She sneezed and cried a great deal from her birth on. She vomited after every nursing, but took the breast well during the first forty-eight hours; by that time she was so weak that she could hardly cry or nurse. On the third day a hemorrhagic eruption appeared in different parts of her body, especially, however, over the buttocks. The child became very anemic, and was constantly in partial stupor. The stools, which, until now, consisted of meconium, contained considerable blood, and several times during the next few days seemed to be composed of pure blood. Chloride of calcium was given with the mother's milk from a spoon, and adrenalin was ordered by lavage. This condition continued for a week, some blood also being discharged by the vagina. Recovery finally, however, was complete, and a month later the child bore no further traces of the hemorrhages. Discussing the cause, Guerin-Valmale excludes prenatal infection, as the mother was perfectly well during the entire pregnancy; postnatal infection, as no signs of any such existed, even the umbilical cord falling off without any trouble; syphilis, there being no history of any. He considers the case to be one of hereditary tendency to hemophilia, the maternal side being remarkably nervous, the paternal side containing several individuals with a tendency to epistaxis and other bleeding. The chilling immediately after birth is considered the exciting cause.

The Antitoxic Properties of Gastric Juice and its Importance in Infant Feeding and Immunity.—Several years ago A. SCHULTZ published the results of certain researches, which showed him that the gastric juice of the newborn and nursing infants destroys the diphtheria toxin; this property he found to pertain to all stomachs functionating normally and not to present any individual variations, which would depend on age, or the mode and state of nutrition of the child. This was found to be due to an organic substance, some importance also being attributed to the degree of acidity of the solution. New studies along the same line performed by him (*Zeit. f. Hyg.*, 1909, lxi, 115) produced the following results and conclusions: (1) The diphtheria toxin is destroyed by a solution of hydrochloric acid, the amount of free acid of which corresponds to the gastric juice of a nursing infant. (2) The action in vitro appears after a certain reaction time (more than fifteen minutes). (3) In vivo the free hydrochloric acid continues to act subcutaneously on the poison, if the inoculation is performed immediately after they are mixed. (4) Hydrochloric acid fixed by egg albumin is without influence on the diphtheria poison, but when fixed with peptone it destroys the toxin. (5) Hydrochloric acid loses its activity when added to cow's milk and cooked human milk, but when combined with ordinary mother's milk the diphtheria toxin is destroyed by the mixture. (6) Combined hydrochloric acid is weaker in its action on diphtheria poison than is free hydrochloric acid. (7) The reaction appeared as quickly in most of the experiments, whether combined or free hydrochloric acid was employed, as long as equal quantities of the solution were used. If the amount of free hydrochloric acid was smaller, the appearance of the reaction was correspondingly slower. (8) The amount of the antitoxic power of both free and combined acids equals their antiseptic properties. (9) The concentration of the pepsin solution employed is forty times stronger than the pepsin strength of the gastric juice of the nursling; it destroys the diphtheria toxin as quickly as does the hydrochloric acid solution, and no free hydrochloric acid need be present in the pepsin solution. (10) The destruction is complete after one minute, the reaction beginning immediately. (11) The acid pepsin solution quickens the results reached with combined hydrochloric acid; it increases the digesting power so much that the destroying power of the pepsin solution containing combined hydrochloric acid is almost equal to that of free hydrochloric acid. (12) The alkaline pepsin solution is without power. (13) Rennet does not act on the diphtheria poison; lactic acid destroys it. Hydrochloric acid combined with mother's milk possesses an antiseptic power equal to that of free hydrochloric acid. In the case of breast-fed children the disinfection of the stomach occurs therefore not only toward the end of the digestive period, but also to some degree during it. This is of especial importance in the cases of children, who, while being artificially fed, are seized with intoxications and infections associated with gastro-intestinal symptoms, and explains why such children recover much more quickly from such diseases when their nourishment is changed to mother's milk.

Ovarian Cysts in Childhood.—CHENEY (*Pediatrics*, 1909, xxi, No. 3) reports a case of ovarian cyst in a girl, aged sixteen years, who had been previously healthy. Menstruation had been regular and normal for two years. She had noticed a growth in the abdomen for about two months, had no fever and few symptoms except discomfort and occasional pain. A large tumor was found occupying the entire left half of the abdomen and extending down into the pelvis, its upper border not connected with the spleen. The outline was regular and felt solid or semisolid. It partly filled the pelvis and had pushed a normal uterus downward and backward. Examination of the blood yielded negative results. On operation a papillary cystadenoma of the left ovary, weighing nine and one-half pounds, was removed. Cheney states that ovarian tumors are not uncommon in childhood, being more frequent as puberty approaches. They are cystic or solid, and include sarcoma, carcinoma, and dermoid cyst. Of all classes multilocular cysts, or cystadenoma, are the most common. He refers to Howard Kelly's collection of 126 cases of ovarian tumors in children. Of this number number, 55 were cysts, 47 dermoids, and 24 solid tumors. The youngest patient reported was an infant, aged four months, the next were three years and four years respectively. In diagnosis ovarian cysts must be differentiated from dermoids and sarcomas of the ovary; from peritonitis with encapsulated effusion; from malignant and cystic disease of the kidney; and from retroperitoneal affections.